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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/670,656 | 09/25/2003 | Clifton Harold Bromley | 03SW165 / ALBRP310US | 8367 |

7590 10/30/2006

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| EXAMINER |
|---|
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| ART UNIT | PAPER NUMBER |
|---|---|
| 2115 | |

DATE MAILED: 10/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/670,656 | BROMLEY ET AL. | |
| | Examiner | Art Unit | |
| | Vincent T. Tran | 2115 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *13 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-7,9-18,20-27 and 29-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-7 and 9* is/are allowed.

6)☒ Claim(s) *10-18,20-27 and 29-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1. This Office Action is responsive to the communication filed on 9/13/2006

2. Claims 1-7, 9-18, 20-27, 29-42 are pending for examination.

3. The text of those sections of Title 35, U.S. code not included in this action can be found in a prior Office action.

### *Claim Objections*

4. Claim 39 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

### *Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

7. Claims 21-27, 29, 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sadahiro U.S. Patent No. 6,237,136 in view of Dumarot.

8. As per claim 21, Sadahiro teaches a method for modifying an application based upon defining parameters of an operating environment comprising:

selecting at least one application to be modified [Code Flow Database file form Fig. 4] an application browser [Fig. 4];

employing an operating environment browser to locate at least one operating environment to be targeted [Select an operation and an OS Fig. 4; col. 6 lines 52-60];

determining parameters associated with the operating environment for the application [inherent]; and

modifying and/or automatically configuring a platform independent version of the application [col. 4 lines 18-20] to the at least one operating environment based at least in part upon the determined parameters [col. 4 lines 26-31].

Sadahiro does not teach determining parameters associated with the operating environment for the application *via interrogation*. The method of Sadahiro still inefficient since the system of Sadahiro is operable to generate code which tailor to a particular operating system and not to a specific system.

Dumarot teaches another method relates to the enhancing and optimizing an program application. Specifically, Dumarot teaches determining parameter associated with the operating environment for the application via interrogation [col. 3 lines 36-38; col. 5 lines 48-51]; and

modifying and/or automatically configuring the application based at least in part upon the determined parameters [claim 1].

Sadahiro and Dumarot are analogous art because they from similar problem solving area; modifying and/or optimizing software application for at least one operating environment.

At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to have modified the method of Sadahiro with the determining

parameters associated with the operating environment for the application *via interrogation* taught by Dumarot.

The suggestion/motivation for doing so would have been to further enhance the performance of the software application for a specific system.

Therefore, it would have been obvious to combine Sadahiro with Dumarot to obtain the invention as specified in claim 21.

9. As per claim 22, Dumarot teaches employed in an industrial automation environment [col. 4 lines 49-53].

10. As per claim 23, Sadahiro teaches a computer implemented software applicant [abstract].

11. As per claim 24, The combine teachings of Sadahiro and Dumarot do not specifically disclose that the interrogation component utilizing an artificial intelligence technique to determined parameters associated with an operating environment for the application. However, this feature is deemed to be inherent to the Dumarot's system as in the abstract shows the survey tool optimizer program operable to automatically gather environment information about the particular system. The Dumarot system would be inoperative if the survey tool does not utilize an artificial intelligence technique to gather the parameters associated with an operating environment for the application.

12. As per claim 25, Dumarot discloses the utilizing an artificial intelligence technique to configured the application based at least upon the determined parameters [inherent – 331 fig. 5].

13. As per claim 26, Dumarot discloses the application modifier system comprising an application [136 fig. 3] and a storage that stores at least one application [138 fig. 3] and at least one parameter interrogation question [331 fig. 5].

14. As per claim 27, Dumarot discloses a history components that stores historical application configurations [col. 8 lines 8-25].

15. As per claim 29, The combine teachings of Sadahiro and Dumarot do not teach the utilizing of a wireless network. However, Dumarot does teach the utilizing of a remote network. As such, it would have been obvious to one of ordinary skill in the art that the network taught by Dumarot encompass the claimed wireless network because the specific network does not affect the operation of Sadahiro and Dumarot system.

16. As per claim 41, it is noted that claim 41 is substantially the same as claim 21. As demonstrated previously, the combine teachings of Sadahiro and Dumarot anticipated claim 21.

17. Claims 10-18, 20, 30-40, 42 rejected under 35 U.S.C. 103(a) as being unpatentable over Sadahiro and Dumarot in view of Stern et al. US 20030233349.

18. As per claim 10, it is noted that the limitation do not substantially differ from claim 21, with the exception of the limitation reciting "a virtual code component that utilizes .NET virtual

machine code-ability mechanisms to convert managed code of the generic template into native computer assembly." As demonstrated previously, the combination of Sadahiro and Dumarot anticipated the limitation in claim 21.

Regarding to the limitation reciting "a virtual code…native computer assembly," Sadahiro only teaches a code generator operable to convert managed code of the generic template into a plurality of different programming languages and/or for a plurality of target operating systems. Sadahiro does not explicitly teach a .NET virtual machine code-ability mechanisms to convert managed code of the generic template into native computer assembly.

However, this feature is well know in the art as taught by Stern et al. in paragraph 0056 and 0057 where Stern et al. teach a virtual code component that utilizes .NET virtual machine code ability mechanisms to convert managed code of the generic template in to native computer assembly[1].

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[1] .NET is an interpreted programming languages are designed to create applications with source code that will run on multiple hardware platforms.

The most important component of the .NET Framework lies in the Common Language Infrastructure, or CLI. The purpose of the CLI is to provide a language-agnostic platform for application development, including, but not limited to, components for exception handling, garbage collection, security, and interoperability. The implementation of the CLI is called the Common Language Runtime, or **CLR**. The CLI is composed of five primary parts:

- Common Type System (CTS)
- Common Language Specification (CLS)
- Common Intermediate Language (CIL)
- Just-in-Time Compiler (JIT)
- Virtual Execution System (VES)

.NET runtime or more precisely Common Language Runtime (CLR) runs the code written for .NET platform. .NET compilers target the .NET runtime and generate intermediate binary code (bytecodes) or Managed Code. During runtime, .NET JIT (Just in Time) compilers convert this intermediate code to native machine code and that machine code is eventually run on the processor.

At the time of the invention was made, it would have been obvious to one of ordinary skill in the art the have modified the system of Sadahiro and Dumarot with a virtual code component that utilizes .NET virtual machine code ability mechanism as shows by Stern et al. since it provides write-once, compile-once, run anywhere application development.

19. As per claim 12, see discussion in claim 10.

20. As per claim 13, see discussion in claim 22.

21. As per claim 14, see discussion in claim 23.

22. As per claim 15, see discussion in claim 24.

23. As per claim 16, see discussion in claim 25.

24. As per claim 17, see discussion in claim 26.

25. As per claim 18, see discussion in claim 27.

26. As per claim 20, see discussion in claim 29.

27. As per claim 30-40, 42, it is noted that the limitation is substantially the same as of claims 10-18, 20. Therefore, rejected for the same reason.

***Allowable Subject Matter***

28. Claims 1-7, 9 allowed.

## *Conclusion*

29. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent T. Tran whose telephone number is (571) 272-7210. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas c. Lee can be reached on (57 1)272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Vincent Tran

CHUN CAO
PRIMARY EXAMINER